

Wildlife Use of Isolated Mesquite Bosques

Mesquite bosques (*Prosopis* spp.) are unique woodlands that occur in the Sonoran Desert and other parts of the arid Southwest. They are typically found on terraces above perennial riparian zones or along ephemeral washes dominated by xeroriparian plant communities. These woodlands provide habitat for a diverse array of wildlife and have been adversely impacted by human activities including groundwater pumping, surface water diversion, livestock grazing, and fuelwood cutting.



A large number of bosques on the Yuma Proving Ground (YPG) Cibola Range were removed during construction of air drop zones used for military testing and training activities. Both wildlife and resource managers have expressed concern over those impacts and interest in the potential for creating new bosques as mitigation on other areas. Understanding the biophysical factors associated with establishment of natural and anthropogenic bosques could help identify candidate sites for creating new bosques for habitat mitigation or enhancement. Preliminary analyses suggest that bosque size is an important predictor of wildlife use, with larger bosques used more frequently and by more species.

Objectives:

1. Quantify wildlife use of anthropogenic bosques, including species present and seasonal patterns of use.
2. Assess influence of vegetation composition and structure on wildlife use of bosques.
3. Identify biophysical factors associated with occurrence of natural and anthropogenic bosques.

The study will be conducted on the YPG North Cibola and Kofa Ranges (Region 4; GMUs 43A and 43B) and will be completed in 2014.

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